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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/977,521 | 10/12/2001 | David S. Allison | 0007056-0204/P6024 | 3955 |
| 32615 | 7590 | 07/17/2006 | EXAMINER | |
| OSHA LIANG L.L.P./SUN 1221 MCKINNEY, SUITE 2800 HOUSTON, TX 77010 | | | FOWLKES, ANDRE R | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2192 | |
| DATE MAILED: 07/17/2006 | | | | |

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 09/977,521 | ALLISON, DAVID S. | |
| | Examiner | Art Unit | |
| | Andre R. Fowlkes | 2192 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 April 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 and 13-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 13-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is in response to the amendment filed 4/13/06.
2. Claims 1-3, 5-6 and 13-18 are pending. Claims 1-3 and 13-15 have been amended. Claims 4, 11 and 12 have been canceled.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-3, 5-6 and 13-18 are rejected under the second paragraph of 35 U.S.C. 112. Specifically, claims 1 and 13 recites the limitation "said value" at claim 1, line 12. There is insufficient antecedent basis for this limitation in the claim. In claim 1, the term "value" is used as both an input and output as a return value in the 3rd and 4th limitations of the claim. Applicants assistance is appreciated in describing which value is being referenced at claim 1, line 12. The rejection of the base claim is necessarily incorporated into the dependent claims 2-3, 5-6 and 14-18.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

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the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, 5-6 and 13-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over by Josuttis, "C++ Standard Library: A Tutorial and Reference", sections 7.2.0-7.2.5, 9.4.0 & 13.3.0-13.3.3, Addison Wesley, ISBN: 0-201-37926-0, (art made of record), in view of Christiansen, et al., (Christiansen), "Learning Perl", O'Reilly, ISBN: 1-56592-284-0.

As per claim 1, Josuttis discloses a **method for iterating in a dynamically typed programming language** (p. 1:1, "C++", and p. 2:10, "STL Iterators"), **comprising:**

- **defining a class wherein said class defines a special operator** (p. 19:2-3, "In C and C++, (the) operators << and >> are used for shifting bits of an integer ... The classes basic_istream<> and basic_ostream<> overload operators >> and << as the standard I/O operators. Thus in C++, the shift operators become the I/O operators (i.e. special operators) (when an instance of the basic_istream class is the argument of the operator"),

- **instantiating an instance of said class in a main method, wherein the main method comprises an operator** (p. 19:2-3, "In C and C++, (the) operators << and >> are used for shifting bits of an integer ... The classes basic_istream<> and basic_ostream<> overload operators >> and << as the standard I/O operators. Thus in C++, the shift operators become the I/O operators (when an instance of the

basic_istream class is the argument of the << or >> operators)", and instances of the basic_istream class are instantiated in main methods. Further, main methods comprise several operators, variables, etc.),

- calling a special operator of said class when the operator corresponding to the special operator is called, wherein a value is returned in response to the call to the special operator (p. 19:2-3, "In C and C++, (the) operators << and >> are used for shifting bits of an integer ... The classes basic_istream<> and basic_ostream<> overload operators >> and << as the standard I/O operators. Thus in C++, the shift operators (i.e. the operator corresponding to the special operator) become the I/O operators (i.e. special operators of said class) (when an instance of the basic_istream class is the argument of the << or >> operators), and a value is returned in response to the call to the special I/O operator"),

- and executing the operator using the value as input (p. 19:2-3, "In C and C++, (the) operators << and >> are used for shifting bits of an integer ... The classes basic_istream<> and basic_ostream<> overload operators >> and << as the standard I/O operators. Thus in C++, the shift operators (is executed using a value as input) become the I/O operators (when an instance of the basic_istream class is the argument of the << or >> operators"),

- wherein said class defines said value to return when said special operator is called, (p. 19:2-3, "In C and C++, (the) operators << and >> are used for shifting bits of an integer ... The classes basic_istream<> and basic_ostream<> overload operators >> and << as the standard I/O operators. Thus in C++, the shift operators become the

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I/O operators (performs an input/output operation which returns the value that is either inputted or outputted).

Josuttis doesn't explicitly disclose that said class is written in a dynamically typed language.

However, Christiansen, in an analogous environment, discloses that **the class is written in a dynamically typed language**, (p. 6:18, "used to increment the iterator (written in Perl, a dynamically typed language)")

Therefore, it would have been obvious to a person of ordinary skill in the art, at the time the invention was made, to incorporate the teachings of Christiansen into the system of Josuttis to have a the class written in a dynamically typed language. The modification would have been obvious because one of ordinary skill in the art would have wanted the flexibility of using the well known and well documented iterator while programming in any dynamically typed programming language.

As per claim 2, the rejection of claim 1 is incorporated and further, Josuttis discloses that **said value is associated with a list of values** (p. 4:3-4, "Input iterators can ... step forward element-by-element ... (and) return values element wise (a list of values)").

As per claim 3, the rejection of claim 2 is incorporated and further, Josuttis discloses that **the operator iterates through said list of values** (p. 4:3, "Input iterators can ... step forward (i.e. iterate through a list of values) element-by-element).

As per claim 5, the rejection of claim 1 is incorporated and further, Josuttis discloses that **said special operator is an increment operator** (p. 9:3-4, "Bidirectional iterators are forward iterators that provide the additional ability to iterate backward over the elements. Thus, they provide the decrement (and increment) operator").

As per claim 6, the rejection of claim 1 is incorporated and further, Josuttis discloses that **said special operator is a decrement operator** (p. 9:3-4, "Bidirectional iterators are forward iterators that provide the additional ability to iterate backward over the elements. Thus, they provide the decrement (and increment) operator").

As per claims 13-18, this is a computer program product version of the claimed method discussed above, in claims 1-3 and 5-6, wherein all claimed limitations have also been addressed and/or cited as set forth above. For example, see Josuttis's STL iterator, p. 3:1-9:4 and Christiansen's iterator, p. 6:18.

Response to Arguments

5. Applicants arguments have been considered but they are not persuasive.

In the remarks, the applicant has argued substantially that:

1) Josuttis does not disclose instantiating an instance of said class in a main method, wherein the main method comprises an operator, at p. 8:17-18.

Examiner's response:

1) The examiner disagrees with applicant's characterization of the applied art. Josuttis does disclose instantiating an instance of said class in a main method, wherein the main method comprises an operator, at p. 19:2-3, "In C and C++, (the) operators << and >> are used for shifting bits of an integer ... The classes basic_istream<> and basic_ostream<> overload operators >> and << as the standard I/O operators. Thus in C++, the shift operators become the I/O operators (when an instance of the basic_istream class is the argument of the << or >> operators)", and instances of the basic_istream class are instantiated in main methods. Further, main methods in a program will not function unless they comprise operators, variables, procedures, etc.

In the remarks, the applicant has argued substantially that:

2) Josuttis does not disclose calling a special operator of said class when the operator corresponding to the special operator is called, wherein a value is returned in response to the call to the special operator, at p. 8:19-21.

Examiner's response:

2) The examiner disagrees with applicant's characterization of the applied art. Josuttis does disclose calling a special operator of said class when the operator

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corresponding to the special operator is called, wherein a value is returned in response to the call to the special operator at p. 19:2-3, "in C++, the shift operators (i.e. the operator corresponding to the special operator) become the I/O operators (i.e. special operators of said class) (when an instance of the basic_istream class is the argument of the << or >> operators)", and a value is returned in response to the call to the special I/O operator.

In the remarks, the applicant has argued substantially that:

- 3) Josuttis does not disclose executing the operator using the value as input, at p. 8:22.

Examiner's response:

- 3) The examiner disagrees with applicant's characterization of the applied art. Josuttis does disclose executing the operator using the value as input at p. 19:2-3, "In C and C++, (the) operators << and >> are used for shifting bits of an integer ... The classes basic_istream<> and basic_ostream<> overload operators >> and << as the standard I/O operators. Thus in C++, the shift operators (is executed using a value as input) become the I/O operators (when an instance of the basic_istream class is the argument of the << or >> operators."

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

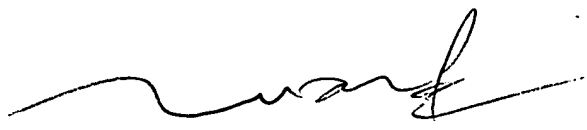
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andre R. Fowlkes whose telephone number is (571) 272-3697. The examiner can normally be reached on Monday - Friday, 8:00am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Q. Dam can be reached on (571)272-3695. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ARF



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